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Youth and New Media
The Impact of Socio-Economic Status on the Use of New Media by Teenagers in Poland and Germany

Introduction

Research on the role of media in the lives of young people[1] has a long tradition and dates back to the 1930s. It was in the United States that the use of radio as an important leisure activity for children was studied for the first time.[2] Even earlier, in 1911, M. M. Davis made New York teenagers' attendance of film screenings the subject of scientific interest. With the development of media, and above all the television and subsequent generations of new media, young audiences and users have become the subject of research of many disciplines such as psychology and pedagogy, sociology, cultural sciences and media studies.

The importance of media for the development of children and teenagers has been subjected to analysis in a variety of contexts: historical, cultural, moral, ethical, social, economic or technological, for example. Quan-

[1] For this study, young people are understood as children and teenagers. While the authors are primarily interested in the use of new media by teenagers . in order to present the history of media use research of a so-defined group, the authors decided to also include research on children's media use.

[2] S.L. Calvert, B.J. Wilson (eds.): *The Handbook of Children, Media, and Development*. Blackwell, New York, 2008.

titative analyses that give an answer to the question of how often children and teenagers watched television and how many hours they spent in front of the television daily had a significant impact at the dawn of the studies, when television was considered the most important medium. Prior to the era of new media, access to television for young viewers was rationed by the programming of the broadcasters and the rules set by their caregivers. Excessive participation in television reception, especially by children, was often perceived as a threat to their intellectual and emotional development.

Successive technological revolutions and radical changes in the processes of mass communication, the emergence of further applications of new media, combined with the development of network media and the culture of participation, meant that today's generation of children and teenagers belongs to a digital natives population. Any regulation and control over the forms of digital native's participation in the media virtual world unworkable. Modern ICTs and their related applications are available to the even the youngest of users. Already children with a few years of age have digital competence enabling them to handle simple applications on tablet or laptop. Mobile devices such as mobile phones, smartphones, and tablets favor young users whose technological skills, agility, and the ability for continuous learning and constant adaptation to change is naturally the highest among the entire population of media users. Miniaturization and multi-functionality of ICTs are also factors that are of no barrier to children and teenagers. Digital natives are not burdened by any habits of communication, nor by social ritual use of mass media. This generation of teenagers, labeled by sociologists as the Z Generation, creates its own rituals and accesses the social and cultural space (often unconsciously) inaccessible to thirty-year-olds, even those familiar with social networks and the culture of information technology.

Teenage users of new media have almost unlimited access to content that is not available via the mass media. New forms of communication offered by Web 2.0 have become a substitute for the real world for young users involved in all the consequences of the expansion of social media. The speed and violence of technological and social change related to the widespread participation in the information society of ever younger media users generates several of new research problems. Benefits and threats of the *information age* to children and adolescents are significant for their

development, attitudes, and social relationships, as well as the processes that shape their individual and social identity.[3]

Research into the effects of media on juvenile customers includes a wide variety of issues and are always situated in a broader social context. Significant technological and cultural changes in recent decades have made children and teenagers the dominant group of media users. Traditional media, mainly television and radio, have been dominated by network and social media, but they have not disappeared. Television, press releases, and radio are received on different technological platforms. Internet via mobile devices remains the most convenient access channel for young people. Television remains a significant medium in the lives of young users, and ranks second after online sources via ICTs. It is clear that television's importance has decreased with the growth of social media and participatory culture. The traditional model of reception of TV programs in this group of users becomes obsolete. The main interest of teenagers are still entertainment programmes, shows, or films addressed to them; however, more and more often such content is received via mobile devices with conditional access. It is difficult to ignore the importance of research on the relationship between young users and television, whose achievements, research methods, and theories may have an impact on the study of processes and phenomena relating to media coverage of the digital native generation.

Studies on television's influence on young users focus on access, time of use, and content. Access to television based media is not a problem for almost one hundred percent of reception devices in well-developed countries. Changes in family lifestyle, like concepts of leisure pastime, make the access of young users to devices and television content dependent primarily on their own preferences. Access remains in close correlation with age, just as with the time devoted to television. It should be noted that research on the reception of television content is not the same as spending time in front of the TV. Research on access to television media and other platforms of content reception is carried out in the context of age, gender, cultural patterns of parents, and socioeconomic status. Analysis of the content of television broadcasts covers issues such as the educational poten-

[3] P. Bennet, A. Kendall, J. McDougall: *After the Media. Culture and Identity in the 21st Century*. London (UK): Routledge, 2011.

tial of remittances, cultural and social patterns transmitted by television media, hostile content, and scenes of violence and brutality. TV broadcasts aimed at young audiences have changed substantially in the past few decades. First of all, the thematic channels with content for children and youth, available 24 hours a day, have appeared. Music channels that emit musical content, videoclips, and content on musicians and music events are open to the needs of ever younger audiences. The production of television broadcasts aimed at children and young people, including television series, films and performances, have significantly increased. Standards have changed both in commercial and public media, resulting in the emergence of new television formats whose primary purpose is entertainment. This also applies to broadcasts for children and teenagers. New cultural patterns have designated new media heroes as important for teenagers. Athletes, rock stars and writers have been joined by heroes from such spectacles as *Idol*, *X-Factor* and *Got Talent*.

Access to content, regardless of age determinations used throughout the Europe, has become easy and almost unlimited. Content research involves the study of the effects of the media. In the case of young users these are the effects of social, cognitive, physical and mental health, and ethical effects. The study of these effects is sometimes correlated with other environmental factors such as school, family, and peer groups. In particular, researchers devote a lot of space to hostile content, mostly scenes of violence and aggression in the media, on the psyche, development, and behavior of children and adolescents. Such studies are of interest to psychologists, sociologists, physicians, ethicists, and criminologists. The results of these studies are taken into consideration also while creating the legislature about the rules of the functioning of broadcasters.

As a medium of interest to teenagers, the role of radio has undergone significant change over the last several years. For several generations young users utilized radio as their principal source of music. Thanks to the music available to them from radio stations, teenage recipients identified with the cultural values important for the development of their identity. New media and digitization of media, as well as changes in the distribution of music broadcasts, have changed the situation.

A separate scope of the research involves young media users' reaction to advertising messages appearing in both traditional and online media.

Teenagers are a valued consumer group in terms of the products and services purchasable by both their family and themselves. The market offers products for young people, abundantly using advertising and other forms of promotion. These phenomena create both a lifestyle and consumption patterns in terms of significant processes of social and cultural change. Teenage consumers are an essential concern for most international businesses, as reflected by marketing and advertising strategies.

Long-term and multi-faceted study on the media in the context of children and young people have already lived to see big output and theoretical generalizations. However, there is difficulty in building adequate models for the relationship between new media and young users. This gap is caused by rapid technological change, the emergence of social media, and participatory culture. The convergence of media is conducive to an entirely new communication situation. The theories that helped build models of the effectiveness of the media in the era of the dominance of television broadcasting ceased to provide adequate grounds. Social cognitive theory, cultivation theory of George Gerbner, or social identity theory help in the conceptualization of research problems and help to describe the world of Generation Z, but are now no longer sufficient.

The Internet and social media impacts young users, including their development, social relationships, lifestyle and identity, in a qualitatively different way than television. First of all, the dynamics of the development of new information and communication technologies and their applications is so fast that it is difficult to anticipate the consequences of their use. For users born in the early twenty-first century, the difficulty is even greater because we do not know how new relationships, new ways of thinking, new understandings of social and physical reality, new emotions, and new sensuality will decide on the relationships and social structures of coming decades. Internet 2.0 has generated new social and cultural spaces where teenage users feel as natural as they do in the real world. Moreover, the network creates new subjectivity unavailable elsewhere, and is crucial for the development of young people. Online communities, variable and unstable, generate new social codes that determine the social status of teenagers.

Like never before participatory culture has forced the continued online status of young users, immersion in real time in parallel digital reali-

ty, where real characters mingle with the characters from computer games and countless audiovisual messages circulating on the network. The new experience of time and space, which Manuel Castells described in his *Information Age* trilogy, has become a daily sensation for young media users.[4] Teenage users, more than any previous generation, "fuse" with devices without which their bodies and minds do not function socially. This new existential situation predicts an unknown and highly risky future. Giddens's category of *risk society* is gaining new strength today.[5]

The study of phenomena and processes that shape social, cultural and existential patterns of the native digital generation allow us to try to understand and anticipate future events. Methodological and theoretical difficulties, however, increase the rate of change and volatility. As argued by Zygmunt Bauman, in today's world permanent order categories crumble in the face of global turmoil of social structure liquefaction.[6] So how will the future look that is shaped by a generation for whom the storm of change, fluidity of time and space, and instability of relationship networks is a norm? How will the generation born after 2000 operate in a world dominated by space technology and liquid meaning and order? These questions must be accompanied by research problems that are easier to solve, taking into account the availability of data and information. Beginning with the classic questions about the availability of new media and how they are used among teenagers, and following with the participation in the culture of social media determined by a number of variables. Research on young users and their habits will also allow for the identification of benefits and risks of participation in cyberspace. Cognitively significant is the research on mutual relations between adolescents and their surroundings influencing the use of their media relationships and involvement in the network.

The following research is a small fragment of reality identification and analysis of the different problems encountered by young media users. The authors made a comparative study on a group of teenagers in two

[4] M. Castells: *Information Age: Economy, Society, Culture. The Rise of Network Society*, Oxford: Routledge, 2000, 408–468.

[5] A. Giddens: *Nowoczesność i tożsamość. „Ja" i społeczeństwo w epoce później nowoczesności*, Warszawa, Wydawnictwo Naukowe PWN, 2001.

[6] Z. Bauman: *Płynna nowoczesność*, Kraków, Wydawnictwo Literackie, 2006.

cities in Poland and Germany. The main research question addressed the impact of parents' socioeconomic status on both access and use of the media, with specific emphasis placed on new media, by Polish and German fifteen-year-olds.

Main idea

This study asks if there is a systematic influence of the socio-economic status (SES) of the family of young people on their use of new media. The research carried out focuses on the aspects of hardware availability to access new media as well as the frequency of use, type of activities, and the characteristics of a more determined (active) or more entertainment-based (passive) user's behaviour.

The motive to carry out the study is based on the fact that even though media use and the socio-economic status of young people are focuses of scientific discussion and ongoing research, the connection of these two fields has yet to receive much attention. While there has been research about the impact of socio-economic status on chances in the field of education or the preferences of spending free time by teenagers, there is not much known about its connection to new media use and the virtual world yet.

Socio-economic status (SES) is conceptualized as "the social standing or class of an individual or group."[7] In this study SES is measured as a combination of education, employment/ occupation, and housing situation. The differences in socio-economic status can help reveal inequalities within groups of people and therefore are widely researched by social scientists.

Nevertheless this topic is of significant relevance to the discussion about young people's chances as it pertains to the integration and active participation in society in times when all types of media, and the Internet in particular, are not to be excluded from everyday life. In this way access, as well as the competence to use digital media (the so-called digital literacy), are main aspects of successful integration in a society.

This study can be seen as our first step in research of the connection of socio-economic status and new media use. It aims to both give answers

[7] American Psychological Association, 1/11/205, http://www.apa.org/topics/socioeconomic-status.

to the questions raised and point out perspectives for future research and discussion. Besides these empirically achieved goals, the analysis of the results will add to the discussion by arguing for the necessity to include a focus on media use competency in the discussion of equal chances and, therefore, also in the education sector.

State of research

Socio-economic status and its impact on people's lives and society has a very long tradition of debate amongst sociologists and also in politics. Special attention to this issue was brought to the forefront with the publication of a PISA-study in the year 2000; this work pointed out the difference in employment status between working class families and parents with higher education. The average level of competence of children from working class families was lower than of their peers with a higher social background, leading to the question of how fair the education systems in Europe are. Since that time the research on poverty within the science of social work pointed out different indicators influencing the lives of boys and girls[8]. Today it is widely recognized that the higher education of parents and higher household income are of positive effect[9] while a migrant background or growing up in a single parent household have a negative impact[10]. Within the last 15 years researchers have pointed out the various dimensions of its influence on the chances and risks of children's lives in general, and of their education in particular.

The research on media use of young people on the other side developed as fast as media itself. The first publication of the study Jugend, Information, (Multi-)Media in 1998 focused on what young people do in their free

[8] G. Holz: "Lebenslagen und Chancen von Kindern in Deutschland" in: *Aus Politik und Zeitgeschichte*, 26/2006, 3–11.

[9] R. Watermann, J. Baumert: "Entwicklung eines Strukturmodells zum Zusammenhang zwischen sozialer Herkunft und fachlichen und überfachlichen Kompetenzen: Befunde national und international vergleichender Analysen" in: J. Baumert (Hrsg.): Herkunftsbedingte Disparitäten im Bildungswesen. Wiesbaden: VS, 2006, 61–94.

[10] Autorengruppe Bildungsberichterstattung: Bildung in Deutschland 2014. Ein indikatorengestützter Bericht mit einer Analyse zur Bildung von Menschen mit Behinderungen Bielefeld: W. Bertelsmann Verlag, 2014.

time, which media they use, and how often they use it. Researching media consumption was connected to the question of which programmes on TV or radio young people prefer. Nowadays it is not news that nearly all young people have access to the internet via a PC or laptop at home, or that they also own a smartphone or mobile phone. Research in this field today discusses the amount of media usage and what boys and girls actually do in their time online[11].

The connection of both fields, leading to the main question of this study, has already been discussed in scientific debates, and some empirically based research projects have already focused on the interconnections. The hypothesis that young people learn to use new media differently based on their socialisation and social background is widely accepted[12]. It also was shown via empirical data that young people with a higher social status benefit more from the broad access to knowledge in the Internet than their peers[13]. Even nowadays, the connection of social status and new media use still leaves many questions open, and is thus what inspired the team of researchers to conduct the presented study.

Hypothesis and structure of analysis

Socio-economic status describes a field of characteristics of an individual, such as the level of education[14], employment status and type of employment[15],

[11] Medienpädagogischer Forschungsverbund Südwest. JIM-Studie 2013. Jugend, Information, (Multi-)Media, 2014.

[12] N. Kutscher: Das Internet als ambivalenter Bildungsraum. Soziale Ungleichheit und Machtstrukturen in der Mediennutzung. In: DJI Impulse 4/2012 (München: Deutsches Jugendinstitut, 2012), 23–25.

[13] N. Zillien: *Digitale Ungleichheit: Neue Technologien und alte Ungleichheiten in der Informations- und Wissensgesellschaft*. Wiesbaden: Verlag für Sozialwissenschaften, 2009.

[14] Our questionnaire included primary, lower secondary, vocational, secondary, and post-secondary/higher education. The levels correspond to the UNESCO's International Standard Classification of Education (ISCED).

[15] Employment status is understood here in a wider way than the simple two-fold distinction of employed and self-employed. It takes into consideration one's entering into formal education/trainee, being retired or unemployed, and employed working as supervisors on managerial positions. On the other hand, the type of employment gave us an overlook into the full-time and part-time work contracts. Both type and employment status were checked via the same questionnaire question.

income, health status, and housing situation[16]. It intertwines, or combines, indicators describing the living conditions of the young person or family. The term, read as these interconnected indicators, is used to characterise the conditions of growing up for children and teenagers; such conditions have a significant influence on their chances in both the education system and life in general. While the connection of socio-economic status and success in the education system was shown in a large number of studies, this particular study researches the perspective of the influence on new media use of children.

The first aspect of the analysis is the access of young people to media hardware with a focus on the possible connection to the economic situation in the family household. Since studies like "JIM Studie. Jugend, Information, (Multi-) Media"[17] in Germany and the World Internet Project[18] in Poland point out a very wide dissemination of media devices and Internet access for young people in both countries in general, only a minor impact of the socio-economic status of the family is expected. Nevertheless, the basic step of the conducted study is getting an overview on the hardware access for this actual generation of teenagers.

A second dimension influencing the accessiblilty of hardware at home can be the differences between the two countries. Since the median national equivalent income in Germany is more than three times higher than in Poland, for some people in Germany it may be financially easier to afford new media hardware than their Eastern neighbours[19]. On the other hand, the availability of Internet access at home and the necessary hardware has spread rapidly during the last twenty years in a way that nowadays it seems usual to own a personal computer, laptop, or smartphone

[16] Housing situation was limited only to the number of people cohabitating with the interviewees.

[17] JIM is an annual study documenting the media behaviour of 12 to 19 year old youths in Germany by Pedagogical Media Research Centre Southwest.

[18] World Internet Project is an international study examining the social, economic, and political impact of the Internet and new technologies. It was started in 1999 by several dozen research centers in the world. In Poland, it has been carried out since 2010, thanks to the initiative of Gazeta.pl and Orange Polska.

[19] Deckl, S.: Einkommen, Armut und Lebensbedingungen in Deutschland und der Europäischen Union. Ergebnisse aus LEBEN IN EUROPA/EU-SILC 2011. In: Wirtschaft und Statistik. Wiesbaden, 2013.

and surf the web. In the analysis of the collected data it will be pointed out whether differences between the two countries can be found or if owning new media hardware is nowadays such a common thing that there is no difference caused by the financial household situation.

Both Germany and Poland are EU-member states and therefore they are subject to the European Union programmes and regulations connected to the new media sphere. In 2015 the European Commission updated its "EU Rolling Plan for ICT Standardisation" which promotes the collaboration in the spheres of broadband infrastructure and open data (merged from big data and public sector information data). In Poland the EU programmes aimed at the informatization of various spheres, such as private business, administration, health service and education, and are in line with the EU's Digital Agenda for Europe (DAE) launched in 2010. In Germany the strategy was adopted in 2009 and is a part of Germany's Digital Agenda 2014–2017. According to the information shared by the Europe 2020 Initiative: "the current broadband and Next Generation Access coverage is above the European average with DSL being the most common technology to provide broadband access in Germany."[20] In Poland, on the other hand, the development of telecommunication and broadband networks and services has been supported by the Ministry of Administration and Digitization (created as a separate entity in 2011). According to the Polish national broadband plan presented on the Europe 2020 Initiative's website, 100% of Polish households and companies should have access to internet connectivity of at least 30 Mbps until 2020 and 50% of them will have access to 100 Mbps by 2020.[21]

The abovementioned European policy has had an indubitable influence on the unifying processes in the new media domain in both researched countries. The differences are, however, still present and therefore are an interesting field of research.

The main part of the presented study will focus on differences in the quality of new media use of teenagers and will discuss the connection to

[20] European Commission "Digital Single Market: Digital Economy and Society", 01/11/2015, http://ec.europa.eu/digital-agenda/en/country-information-germany.

[21] European Commission "Digital Single Market: Digital Economy and Society", 01/11/2015 http://ec.europa.eu/digital-agenda/en/country-information-poland.

differences in the socio-economic status. The term quality sums up aspects such as:

- frequency of use
- preferred activities
- type of media use (determined vs. entertainment-based, active vs. passive)

The collected data shows how often teenagers use different kinds of media devices. Studies like Health Behaviour in School-aged Children[22] as well as the AWO/ISS Study on Child Poverty[23] pointed out a higher television consumption for children from underprivileged households. In the presented research project the consumption of all collected indicators will be analysed in connection to the socio-economic status of girls and boys.

A second dimension is to compare if both the financial and work situation of the parents of young people show a connection to their preferred activities in media and Internet use. The leading hypothesis is a more determined use of new media from families with a higher SES. As already uncovered in the PISA study[24], children from underprivileged families (understood as low SES) own fewer books and watch TV more often. Following this pattern, it may be assumed that with higher socio-economic status girls and boys use new media more often in an educational way and less often show a mere passive use with the focus on entertainment.

The collected indicators will be classified in groups matching these two different kinds of media use and analysed for a connection to the socio-economic status of the families. Furthermore, the data material will also be evaluated with focus on differences between the countries, differences of media use by gender, as well as additional interconnections.

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[22] Currie C et al. eds. "Social determinants of health and well-being among young people. Health Behaviour in School-aged Children (HBSC) study": international report from the 2009/2010 survey. Copenhagen, WHO Regional Office for Europe, 2012.

[23] AWO (Arbeiterwohlfahrt e.V.) as a welfare organisation in Germany and ISS (Institut für Sozialarbeit und Sozialpädagogik e.V.) as a research and counselling institute carried out a study on child poverty, referred to amongst others by Gerda Holz in 2006 in "Lebenslagen und Chancen von Kindern in Deutschland", in: *Aus Politik und Zeitgeschichte.* 26/2006, 3–11.

[24] Programme for International Student Assessment launched by the OECD in 1997 offering data on the knowledge and skills of the students and the performance of the education systems in OECD member countries.

Research design

The data collection for both Poland and Germany was carried out as a questionnaire. The questionnaires were handed out to the teenagers during classes in school. In this way it is possible to reach the addressed population in the most heterogeneous composition possible and at the same time efficiently collect a large number of completed questionnaires.

The researched population were girls and boys out of the same school and either 15 or 16 years of age. At this age most of the teenagers are familiar with new media and the Internet and can already show an experienced behaviour of use. At the same time, because the main focus of the conducted study is the influence of socio-economic family background, the population was defined within an age cohort still influenced by their parents and living conditions and, thus, have not already reached an age independent from the conditions of growing up. Additionally, all the 15 and 16 year old boys and girls attend the 2nd grade of middle school in Poland and the 9th grade in Germany.

In Poland the compulsory education system involves one year of preschool that takes place either in kindergartens or primary schools. After six years of primary school pupils attend middle school for three years, which usually has a profile of specification such as natural sciences, IT, or humanistic subjects. Information technology, as a school subject called "computer classes", is introduced in the first three years of primary school for a minimum of 95 hours.[25] In Germany all pupils attend primary school and after four (in some regions six years) they attend different school types of various length and achievable degree. Because the 9th grade is the final school year in which all children are legally obliged to attend, at this age the target population is still within reach in order to efficiently carry out the questionnaire study. In Thuringia pupils are taught basic media knowledge in primary school. Later on the subject is taught not in the

[25] Regulation of the Minister of Education from 7 February 2012 on the framework curricula in public schools, Warsaw, 22 February 2012, Annex 1: Framework plan for primary education, including special primary schools except for special primary school for pupils with moderate or severe mental imparity, §1, 1e and Domerecka B., Leśniewska I., Sikora R., Tałanp P., Poradnika dla dyrektora szkoły podstawowej, (Ramowe plany nauczania, Ośrodek Rozwoju Edukacji, Warsaw 2012) 14.

form of separate classes but in connection to one of their subjects in an average amount of one lesson per week from the 5th to the 10th year[26]. Furthermore, it is possible to take part in special computer classes but only as selective modules from the 7th respectively 9th grade on, depending which school type the boys and girls attend.

Because project was realised as an initiative and explorative study, the data collection was not to be realized countrywide in a representative way. The questionnaires were handed out in one location in each country covering all the common types of schools in both school systems. The locations were chosen to be comparable with each other, particularly through their infrastructure and relative social welfare conditions. In Germany the study was carried out in Erfurt, the capital city of Thuringia. In Poland the questionnaires were handed out in Sosnowiec of the Silesian Voivodship. Both cities are of comparable size and infrastructure and show a similar unemployment rate compared to the national average.

Sosnowiec encompasses 92 km² out of which 23 km² are residential and industrial areas. The city has 209,274 inhabitants (from 31.12.2014). The unemployment rate is 13.2% compared to 11.2% for Poland and 9.5% for Silesian Voivodship.[27] The city of Erfurt encompasses 269 km² out of which more than 26 km² are residential and industrial areas. The city has 206,380 inhabitants (from 31.12.2014). The rate of unemployment in Erfurt was 8.1% in April 2015. It was higher when compared to an average unemployment rate of 7.6% in Thuringia and 6.5% in Germany[28].

Erfurt is a city in the former German Democratic Republic (GDR) that, similarly to People's Republic Poland, since the Second World War had been under the influence of Soviet forces. Similar historical experiences and their repercussions for many economic and social aspects of both countries offer an additional factor in the presented comparative study.

In the data collection altogether a sum of 283 girls and boys filled in the questionnaire. In Germany, classes out of four different schools took

[26] Thüringer Ministerium für Bildung, Wissenschaft und Kultur. Medienkunde. Erfurt, 2010.

[27] Data for April 2015 from the District Labour Office in Sosnowiec, 01/11/2015, http://www.pup.sosnowiec.pl/urzad_pracy/stopa_bezrobocia.html .

[28] Data published by the public employment agency Bundesagentur für Arbeit Statistik, 01/11/2015, https://statistik.arbeitsagentur.de

part in the research project. The selection of classes was planned and realised in a way that teenagers from all school types and programmes will be asked, and the amount of filled in questionnaires will match the general proportions of young people in Germany attending these school types. Furthermore, the location of the schools in the city of Erfurt was selected throughout the city in order to cover areas of different social structure. In Sosnowiec pupils in classes out of three schools took part in the research project. In Poland young people at the age of 15 and 16 years all attend the same type of school, and the location of the schools were carefully selected to cover a wide field of conditions in the families in different areas of the city.

The construction of the questionnaire was based on explorative interviews with young people and pretested before its final use as a research instrument. It consists of four different parts. Firstly, demographical information was collected. Secondly, the accessible media hardware and the availability of the Internet, as well as the frequency of use of different devices and services, were registered. The main part of the questionnaire was constructed in the form of statements to which the girls and boys were able to express their acceptance or disagreement on a Likert scale. These statements were designed in a way to test the main research questions by focusing on new media use through the teenagers' experiences. The last part of the questionnaire contained items in connection to the socio-economic status of the family.

The socio-economic status, before mentioned as part of the main hypothesis, sums up various aspects of living conditions of an individual to an artificial construct. In its abstractness this construct was proven to be connected to different characteristics of someone's life such as habitat, life expectancy, or chances to reach higher degrees in the education system. In the conducted study it was neither efficient nor possible to measure the socio-economic status in its full scale. Also the household income as a central indicator of economic status was not placed in the questionnaire, as the young people in this age group may not know or, on the other hand, not want to give information about this aspect. Therefore, in the questionnaire the two aspects: educational level of the parents and their job situation, were captured. Both indicators were operationalised in an ordinal scale for the cause of statistical analysis. The job situation was not

only collected by the scale but also in an open question, where the girls and boys were asked to name their parents jobs, and to thus allow a more sensitive classification. The questionnaire also asked if the teenagers live with both parents, one parent, or in a different situation. This information was gathered in order to consider the actual living conditions as a part of the socio-economic status. Further and more detailed information about used methods and applied calculations will be given in the relevant part of the article and following the discussion of the results.

Research results

The data is presented according to the research areas outlined in the research design chapter. The authors decided on such an order as a result of the data analysis which proved the differences between the countries not to be prevalent in most of the questions. Wherever applicable, the comparison between the countries is presented. Otherwise, the countries are analysed together with other factors, such as SES or gender, being the main differentiator. With the aim of providing reliable statements for further discussion, the results of the study were analysed with the help of two different correlation coefficients. This was a necessary step, as the scale level of the items in the questionnaire was not homogeneous. Spearman-Rho was used to analyse the intensity of the relation of ordinal scaled items. This correlation coefficient operates based on the ranking of a value within the whole range of values for one variable. For this reason, it is considered a reliable coefficient to be used with ordinal scaled items. In the present study the collected data material referring to the frequency of use of different aspects, as well as carrying out activities, is scaled with ordinal numbers. Furthermore, Spearman-Rho was used to analyse the relation of socio-economic status to other aspects. The variable of socio-economic status is based on the level of education and the occupational status of the parents, both of which are presented in the ordinal scales.

The Pearson correlation coefficient, also known as point-biserial correlation coefficient, is used to analyse the correlation of interval scaled items. Within this study, interval scaled items are the age of young people, their money spent on hardware and software, as well as their approval of different statements.

Access to media and new media hardware

As the study has shown the access to new media, understood as the hardware, is relatively high compared to old analogue media. Among the most popular new media were smartphones (90%), with laptops being a bit further behind (74%). Similar results have been found for both countries with Polish teenagers showing on average 5% lower access rate than German teenagers, respectively. The availability of tablets has reached a similar level to the availability of personal computers (PCs), which have been losing on popularity in favour of more mobile hardware like laptops, tablets and smartphones, tools that enable surfing the Internet on the go. 60% of the interviewees have a PC and 58% have a tablet. In Poland the popularity of a PC is still very high, placing that medium high above tablets, with 69% teenagers admitting to own one.

The difference between the countries is also visible when considering the popularity of game consoles. 61% of German teenagers own a console, compared to only 45% of Polish teenagers

With old media, defined as television (understood as a TV set)[29], radio, books and press (with distinction between daily newspapers and magazines), television remains an unquestionable leader of all the media available to teenagers. Television's popularity (91%) exceeds even small and relatively cheap smartphones. What deserves to be emphasized is the notable difference in popularity of television between the teenagers in Poland and Germany. While 96% of Polish teenagers claim to have a TV set, only 86% of their German peers state the same, making smartphones the most popular medium in Germany and television in Poland. Differences between both countries can also be seen on the examples of radio (62% of German and 35% of Polish teenagers have one) and newspapers (respectively 26% and 15%).

Digital technologies are often seen as the end of the era of print media (books, newspapers and magazines). While the last two are clearly less

[29] Television is understood as a service available on various platforms (therefore, can also belong to the new media), while the TV (or television) set is an old medium and hardware enabling the reception of the televised content.

popular than other media (respectively 23% and 33%), the percentage of teenagers in both countries using books is relatively high (61%).

Interestingly, the popularity of a traditional mobile phone is dropping. Once a popular tool for oral (phone calls) and written (text messages) communication, it does not offer the use spectrum of a smartphone, and therefore only 24% of all the teenagers claim to use one. The popularity of mobile phones is higher in Poland (30%) than in Germany (15%), and could be explained by the fact that smartphones are still relatively expensive tool whose functions can be performed by more popular new media such as laptops or tablets.

Table 1. Please mark, which of the following things you use. It is not important if you own them personally. We would like to know which of them are available at your home for your exclusive use[30]

Country	Percentage of pupils answering yes										
	TV	radio	books	newspapers	magazines	console	PC	laptop	tablet	mobile phone	smartphone
Germany	86	62	64	26	29	61	52	77	52	15	92
Poland	96	35	55	15	32	45	69	72	55	30	87

In the studied group of teenagers, almost 40% of the teenagers who have a mobile phone also own a smartphone and tablet. Slightly more than 44% of them own a mobile phone and either a smartphone or tablet. The number of devices owned by teenagers also indicate differences between the two countries. In Poland they mostly use either a smartphone or tablet together with a mobile phone, while in Germany the tendency is to use both as a supplement for the mobile phone. 14.7% of teenagers have both a mobile phone and smartphone (11.5% in Germany and 18.9% in Poland respectively). Smartphones, although similar to mobile phones in terms of in basic communication functions, are a more popular substitute and are more common than tablets. Also the ownership of laptop is not often

[30] All research results and included tables presented in the article come from our own research.

treated as a substitute to the desktop computer, but rather an additional device at home. Almost 40% of teenagers in both countries use both a PC and a laptop. It is also interesting that this situation is more popular in Poland (slightly more than 44%) than in Germany (above 36%). The fact can be explained by the higher popularity of tablets among German teenagers that can mostly replace laptops as a mobile Internet device.

Almost 40% of our interviewees collectively have a smartphone, a tablet, and a laptop. The difference between the countries is minimal (0.7% in favour of Polish teenagers).

The influence of socio-economic status that was estimated on the basis of parents' education level and type of work has been found significant mostly in the research group from Germany. As it concerns new media, the positive correlation was only found between the parents' education level and the availability of smartphones, as well as the type of work the parents do and the access to laptops. The correlation between the parents' job and the possession of a laptop is also the only new media correlation found in the Polish research group. As seen from these results, teenagers in both countries whose parents do so-called white collar jobs, such as leading managerial positions, use laptops at home. This situation can be caused by the fact that such kind of computers are simply more available at their homes, since laptops have become a preferred computer of white-collar workers and is often provided to them by the company.

Table 2. Correlation of the mother's education level with the ownership of a mobile phone or smartphone

Ownership of		All cases	Germany	Poland
A mobile phone	Spearman-Rho	*0.137	0.109	0.120
	significance	0.038	0.234	0.215
	N	230	121	109
A smartphone	Spearman-Rho	–0.123	*–0.209	–0.002
	significance	0.063	0.021	0.985
	N	230	121	109

* Correlation is significant at the 0.05 level (2-tailed)

In Germany there is also a negative correlation between the education of parents and the ownership of a smartphone, however it was not found in Poland. Interestingly enough, when taking into consideration the education level of a mother herself, the positive correlation with the ownership of a traditional mobile phone in both countries is found. Both found aspects indicate that with a higher education of their mother, boys and girls more often only have a standard mobile phone instead of a smartphone.

The mother's education has been distinguished as it was proved that the level of mother's education has a greater impact, for example, on their children's educational achievements than that of their father's[31]. Although the study's goal was not to measure the educational performance of the children, the authors decided to distinguish it in their results, looking for significant correlations. The use of new media, meant as the full employment of their possibilities in order to enhance and simplify some everyday activities, can be seen here as digital literacy. Digital literacy is defined as the ability to use digital devices and possessing a fundamental understanding of modern network devices such as laptops, smartphones, tablets, etc.

> A person's ability to perform tasks effectively in a digital environment… Literacy includes the ability to read and interpret media, to reproduce data and images through digital manipulation, and to evaluate and apply new knowledge gained from digital environments.[32]

The term used wider than "digital literacy" in the European Commission documents is "digital competence". As such it is treated by the Commission as one of the eight key competences for Lifelong Learning in the European Union. It is defined there as:

> Digital Competence can be broadly defined as the confident, critical and creative use of ICT to achieve goals related to work, employability, learning, leisure, inclusion and/or participation in society. Digital competence is a transversal key competence which, as such, enables us to

[31] Fertig, M.: "Who's to Blame? The Determinants of German Students' Achievement in the PISA 2000 Study". RWI: Discussion Papers #4. RWI Essen, 2003.

[32] Jones-Kavalier, B. R. & Flannigan, S. L.: "Connecting the Digital Dots: Literacy of the 21st Century", 2006: http://er.educause.edu/articles/2006/1/connecting-the-digital-dots-literacy-of-the-21st-century (23.09.2015)

> acquire other key competences (e.g. language, mathematics, learning to learn, cultural awareness). It is related to many of the 21st Century skills which should be acquired by all citizens, to ensure their active participation in society and the economy.[33]

In this way digital literacy can be understood as one of the basic skills acquired by people throughout their lives and connected (via interpretation, evaluation and application processes) to their other academic achievements. Thus the authors signal throughout this article significant correlations found for the influence of the mother's education level on the various aspects connected to the use of new media they researched on.

More correlations between the parents' socio-economic status and the use of media have been found for old analogue media as opposed to the new ones. This fact could be explained by the certain novelty of new media, which encourages more people, regardless their socio-economic status, to purchase and use them. This could be also a simple question of necessity that requires a family to possess at least one new medium enabling, for instance, the access to the Internet.

A correlation between the use of radio by teenagers and their parents' socio-economic status has been found in Germany. Broadcast media such as radio has become the media of commuters, and as Nielsen reports, about 2/3 of radio listeners tuned in outside of the home.[34] Since the question was about the standard medium, not radio podcasts, the children of higher SES tend to listen to such form of radio more often than their peers. At the same time other research results show that most of radio listeners tune in outside of the home, leaving a limited range of situations in which teenagers could listen to the standard radio medium, such as radio service received through their mobile devices or in their parents' cars.

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[33] Ferrari A., DIGCOMP: A Framework for Developing and Understanding Digital Competence in Europe, ed. Punie Y., Brečko B. N., European Commission Joint Research Centre Institute for Prospective Technological Studies , Seville 2013, http://ftp.jrc.es/EURdoc/JRC83167.pdf (01.11.2015), 2.

[34] Nielson, "A Look Across Media: The Cross-Platform Report, 12/2013, http://www.nielsen.com/content/dam/corporate/us/en/reports-downloads/2013%20Reports/The-Cross-Platform-Report-A-Look-Across-Media-3Q2013.pdf

A positive correlation has been found between higher socio-economic status (SES) and the readership of the books by the teenagers. This correlation appears also when considering the parents' educational level rather than their employment status. It proves that the prices of the books are not necessarily the reason for the poor readership among some of the teenagers, and thus is connected to the reading habits acquired at home.[35] Reading is not a basic need, but it's acquired in later life and can result, for example, from the basic need of self-fulfilment.

The correlation between the SES and the readership of daily newspapers is evident in both countries. However, while in Germany newspapers are more available, the higher education level of the parents and, therefore, the teenagers can access them more freely, in Poland this correlation is negative. The highest readership of the press is in homes where parents have middle level of education. The availability of daily newspapers and magazines falls for families where parents have higher education levels. The specificity of the readership of magazines is also different from the daily newspapers. The magazines' subjects are mostly thematically restricted and targeted to special groups, which may mean that magazines will actually be bought by and for the teenagers, while daily newspapers will be available at home for the whole family.

The differences in the use of media based on the gender of teenagers for the whole interviewed population confirm the results of other studies examining the use of media by males and females.

- Girls read books more often than boys (72% of girls compared to 48% of boys).
- Boys play games more often than girls (75% of boys and 32% of girls).
- Boys use PCs more often than girls (69% of boys and 50% of girls). Such differences do not appear for the use of laptops and can be explained by the fact that desktop computers are used for gaming more often than other types of computers.

Surprisingly, the teenagers living in families with at least one brother or sister have lower access to the media than their peers who are the only child. The exception is the access to daily newspapers which is on the same level regardless the size of family. These characteristics apply for

[35] http://www.pik.org.pl/upload/files/Raport%20PIK%207-11-2013%20final-final.pdf

both Germany and Poland. This can be explained by the fact mentioned above, and is connected to the wide spectrum of topics that a daily newspaper covers, which make it a general medium not addressed to any family member in particular.

Table 3. Correlation between socio-economic status of the family and availability of books, newspapers and magazines at home

Availability of:		All cases	Germany	Poland
Books	Spearman-Rho	0.094	**0.266	–0.128
	significance	0.131	0.001	0.170
	N	260	144	116
Newspapers	Spearman-Rho	*0.147	**0.385	*–0.233
	significance	0.018	0.000	0.012
	N	260	144	116
Magazines	Spearman-Rho	**0.210	**0.361	0.008
	significance	0.001	0.000	0.928
	N	260	144	116

* Correlation is significant at the 0.05 level (2-tailed)
** Correlation is significant at the 0.01 level (2-tailed)

Table 4. Please mark which of the following things you use. It is not important if you own them personally. We would like to know which of them are available at your home for your exclusive use

Living with brothers and/or sisters	Percentage of pupils answering yes										
	TV	radio	books	newspapers	magazines	console	PC	laptop	tablet	mobile phone	smartphone
No	96	55	64	21	34	61	64	70	59	26	92
Yes	88	49	58	21	28	53	56	75	51	18	89

Analogically in both countries, the teenagers living with a single parent have similar access to new media and basic old media as their peers. The difference, however, is visible in the access to subscription print me-

dia like newspapers and magazines. 14% of teenagers living with a single parent have access to daily newspapers (compared to 26% of their peers living with both parents) and 20% have access to magazines (compared to 36% in full families).

The frequency of the use of media by teenagers

Teenagers whose parents belong to a higher SES use the Internet more frequently. When it comes to other media, teenagers of a higher SES read newspapers and magazines more often. For Germany the study found a significant positive correlation between the SES and reading books, as well as the frequency of teenagers that are listening to the radio. Furthermore, boys and girls from families with a higher SES less often use game consoles but more often use the PC, laptop, or tablet (in this particular case the result is not significant).

Television, the most popular medium among all age groups, has taken only fourth place among the most popular media used by the participating teenagers. Although almost every teenager has a television set at home, most of the teenagers claim to watch TV only a few times per week. This places television behind such media as the Internet, smartphones and mobile phones, and computers. All three are used a few times a week, up to everyday. The unquestionable leaders in popularity are the Internet and smartphones, which are used almost daily. The predominance of the computers (PCs, laptops and tablets) is bigger in Poland than in Germany. Polish teenagers use these media almost every day, while their peers from Germany claim to only use them a few times a week. Also television seems to be still more popular among Polish teenagers than their German counterparts. Polish teenagers watch TV a few times a week, up to every day, while German teenagers claim to watch TV about once a week. Still both results are far away from the standard results provided by television viewers of all ages, where most of the people watch TV every day (according to NYSE: IHS for Germany the average is 210 minutes a day).[36]

[36] IHS Markit, "Brits Watch Less TV Than Ever Before; Italians Watch the Most, IHS Says", 02/09/2015, http://press.ihs.com/press-release/technology/brits-watchless-tv-ever-italians-watch-most-ihs-says-infographic

Table 5. Correlation between socio-economic status of the family and the frequency of use of different media

The media		All cases	Germany	Poland	Girls	Boys
TV	Spearman-Rho	0.022	0.072	–0.034	–0.008	0.046
	significance	0.727	0.391	0.721	0.929	0.599
	N	260	144	116	127	133
Radio	Spearman-Rho	0.104	**0.264	–0.136	0.085	0.101
	significance	0.099	0.002	0.152	0.348	0.25
	N	254	142	112	123	131
Books (not for school)	Spearman-Rho	0.11	*0.218	–0.058	0.159	0.047
	significance	0.085	0.01	0.548	0.079	0.606
	N	247	138	109	123	124
Newspapers/ magazines	Spearman-Rho	**0.227	**0.401	–0.045	0.134	**0.299
	significance	0	0	0.645	0.144	0.001
	N	248	140	108	121	127
Console	Spearman-Rho	–0.047	*–0.179	0.117	–0.032	–0.004
	significance	0.455	0.034	0.22	0.727	0.968
	N	251	140	111	121	130
PC/laptop/ tablet	Spearman-Rho	0.115	0.164	0.088	0.172	0.078
	significance	0.065	0.05	0.351	0.055	0.38
	N	256	142	114	126	130
Mobile phone/ smartphone	Spearman-Rho	0.014	0.001	0.033	0.017	–0.002
	significance	0.823	0.99	0.724	0.853	0.979
	N	259	144	115	127	132
Internet	Spearman-Rho	**0.168	0.152	*0.183	0.17	0.161
	significance	0.007	0.068	0.05	0.055	0.065
	N	259	144	115	127	132

* Correlation is significant at the 0.05 level (2-tailed)
** Correlation is significant at the 0.01 level (2-tailed)

Table 6. Average answer of the frequency of media use based on the following coding of the possible answers: 1-never, 2-rarely, 3-once a week, 4-several times a week, 5-daily

The media	All cases	Germany		Poland	
		Female	Male	Female	Male
TV	4.04	3.83	3.54	4.38	4.65
Radio	2.76	3.41	2.54	2.64	2.44
Books (not for school)	2.72	3.26	2.21	3.12	2.29
Newspapers/magazines	2.20	2.13	2.14	2.19	2.38
Console	2.67	1.93	3.22	1.92	3.67
PC/laptop/tablet	4.35	3.85	4.38	4.63	4.60
Mobile phone/smartphone	4.86	4.94	4.76	4.85	4.92
Internet	4.90	4.92	4.94	4.90	4.83

Other media such as radio, books and game consoles are used by the teenagers from both countries less often – once a week, and for print media (newspapers and magazines) – even rarely.

The difference among boys and girls in the frequency of media use is most evident with the example of book readership and the use of video game consoles. While girls read books more slightly often than boys, boys are clearly more regular users of the game consoles than girls. Boys play games on the consoles on average once a week (or more often), while girls – rarely or never.

The size of family doesn't seem to have any relevant influence on the frequency of particular media use. There was also no correlation found between the SES and the frequency of smartphone use, which may prove the immense popularity of this medium among young people.

Places where teenagers access the Internet

Most of the teenagers that took part in our research access the Internet at home (95% in Germany and 91% in Poland). The positive correlation of SES and this type of Internet access has been found, however, only for Germany. This correlation can be read as the low percentage of teenagers in Germany that do not use Internet at home do have a significantly lower socio-economic background.

Table 7. Internet use in different locations by country

Location	Germany	Poland
At home	95%	91%
At friends' places	49%	38%
Mobile Internet	85%	60%
At school, clubs, coffee places	21%	40%

The most significant differences in the type of Internet access between Germany and Poland can be seen with the example of access to mobile Internet. While majority of German teenagers (85%) state that they access the Internet using this service, only 60% of their peers in Poland do so. The reason for such a situation can be linked to the less popular use of the Internet outside of home in Poland. 40% of Polish teenagers use hotspots provided in different public places or at school, but they will not often use the regular mobile Internet service (coverage available in Poland includes: 3G, CDMA, HSPA, 4G, LTE). On average 1GB of mobile Internet in Poland costs 10 PLN (about 2.50 euro) and its validity differs from 7 days or up to 30 days. On the contrary, in Germany 1 GB of mobile data comes to ca. 10 euro a month. Still the popularity of this kind of Internet is higher in Germany than in Poland. As shown in our study, the popularity of free Wi-Fi use in Poland is greater than in Germany. In fact, in Germany it is the least preferable Internet access point with only 21% of teenagers using this kind of connection regularly.

There are no significant differences in the place of Internet access when taking into consideration the teenagers' gender. Girls, however, tend to use the Internet at a friend's place slightly more often than boys (52% of girls and 36% of boys). They also log online using the open public Internet service more frequent (33% of girls and 26% of boys).

Age of the Internet access initiation

The collected data shows no structured connection between the age in which teenagers started using the Internet and the level of education or the job of their parents. A hypothesis claiming the influence of the edu-

cational level or the financial situation on the age of Internet access initiation cannot be verified by the conducted study.

What does correlate with the age of Internet access initiation is available hardware, such as console, pc or tablet. If such hardware is available at home then these children have already had contact with the Internet prior to our study. Both aspects may be influenced by either parental decisions or the teenagers' interests. If the young person is interested in Internet or media, or if the parents support such behaviour then there may be hardware at home that enables the girl or boy to access the Internet at an earlier age.

A significant difference in the age of the Internet access initiation between the countries was among the study's more interesting finds. In Poland the children start going online at an average age of 7.7 while in Germany the average age was 8.9 years.

Another aspect shown by the collected data is a difference in the access age to the Internet between teenagers growing up in a single parent household and their peers in a two parent household. This comparison only included data of youngsters who either answered that they live with one or two parents and excluded the cases of patchwork families or grandparents living in the same household. It is shown that children growing up with one parent access the Internet with an average age of 9.1, while girls and boys living with two parents averaged 8.1. While we can see a difference of one year in between these groups, the collected data material provides no direct answer to its reason.

Table 8. Average age of first time Internet use for different groups

All cases	8.41
Germany	8.94
Poland	7.75
Girls	8.73
Boys	8.16
Living with one parent in the household	9.16
Living with two parents in one household	8.19

The significant correlations found for the age of Internet access initiation connected with the use of new media apply to the use of messenger applications that enable sending text, picture, and video messages online and the frequency of using streaming websites and those that enable downloading films. As seen from our research results, teenagers whose age of Internet initiation was lower download and stream films more often. On the other hand, they turn out to be less frequent users of messaging applications.

Table 9. Correlation between the age of first Internet use and the use of different services online

Online services	Spearman-Rho	Significance	N
Wikipedia	0.006	0.945	140
Facebook	0.054	0.521	145
YouTube	0.093	0.267	144
Twitter	0.011	0.899	143
Spotify	0.082	0.330	144
Instagram	0.110	0.193	142
Skype	–0.057	0.498	142
Streaming/downloading movies	*–0.201	0.017	141
Messenger services (WhatsApp, Viber)	*0.195	0.020	143

* Correlation is significant at the 0.05 level (2-tailed)

Age of Internet initiation seems to also have influence on money spending patterns. Teenagers who used the Internet relatively early for the first time, often spend more money on computer games. The results also show that they find it more important to have the newest version of a smartphone.

Another significant correlation for the age of the Internet initiation is connected with the activities of the teenagers online. The teenagers who had their Internet initiation earlier tend to upload content more often.

Table 10. Correlation between the age of first Internet use and monetary spending patterns

Internet use	Pearson correlation coefficient	Significance	N
Software for PC/laptop	–0.053	0.529	144
Games for PC/laptop	**–0.241	0.004	144
Apps for smartphone/tablet	0.022	0.795	145
Download of movies and music	0.002	0.985	143
Ringtones	–0.076	0.365	144
Paid content in games	–0.157	0.060	145

** Correlation is significant at the 0.01 level (2-tailed)

Table 11. Correlation between the age of first Internet use and the approval of statements

Internet use	Pearson correlation coefficient	Significance	N
I often upload own content	*–0.168	0.044	144
It is important to me to always have an up-to-date smartphone	*–0.165	0.049	142

* Correlation is significant at the 0.05 level (2-tailed)

Use of new media by the teenagers

In the presented research the authors asked about the frequency of particular activities connected with the use of new media and the Internet. The activities ranged from school research to online shopping and involved thirteen popular online activities.[37] The significant correlations between the frequency of use and parents' SES were found for such activities as online research for school, online gaming, and shopping online.

[37] These activities include online research for school, online research connected to own interests, watching online video content and films, online games, listening to the music, social networking, updating statuses on social networks, Skype and other software used for online voice conversations, following a blog, writing one's own blog or website, uploading online content for other users, online forum discussions, and online shopping.

Table 12. Correlation between socio-economic status of the family and the frequency of different activities

Activities		All cases	Germany	Poland
Research for school	Spearman-Rho	**0.259	**0.282	*0.230
	significance	0.000	0.001	0.013
	N	255	140	115
Research for own interests	Spearman-Rho	0.031	0.094	–0.060
	significance	0.626	0.272	0.532
	N	250	138	112
Watching movies and clips	Spearman-Rho	–0.007	–0.036	0.030
	significance	0.908	0.673	0.750
	N	254	140	114
Gaming	Spearman-Rho	*–0.152	**–0.253	–0.013
	significance	0.016	0.003	0.895
	N	252	138	114
Listening to music	Spearman-Rho	–0.060	–0.121	0.018
	significance	0.335	0.153	0.850
	N	257	142	115
Social networks	Spearman-Rho	–0.040	–0.080	0.004
	significance	0.522	0.349	0.963
	N	253	140	113
Update status on social networks	Spearman-Rho	–0.079	–0.152	0.025
	significance	0.209	0.071	0.795
	N	255	142	113
Skype	Spearman-Rho	–0.004	–0.112	0.147
	significance	0.955	0.186	0.114
	N	258	142	116
Follow blogs	Spearman-Rho	–0.017	0.001	–0.038
	significance	0.791	0.993	0.683
	N	254	138	116
Take care of own blog or website	Spearman-Rho	0.002	0.077	–0.084
	significance	0.974	0.365	0.373
	N	255	140	115

Share content with others	Spearman-Rho	0.033	0.002	0.075
	significance	0.598	0.984	0.427
	N	253	139	114
Take part in forum discussions	Spearman-Rho	–0.053	–0.070	–0.001
	significance	0.402	0.412	0.991
	N	251	139	112
Shop online	Spearman-Rho	*0.129	0.097	0.170
	significance	0.039	0.253	0.069
	N	256	141	115

* Correlation is significant at the 0.05 level (2-tailed)
** Correlation is significant at the 0.01 level (2-tailed)

The survey data reveals the positive correlation between socio-economic status and the frequency of doing online research for school. In general, the teenagers research rarely or once a week, with the tendency among girls to conduct it more often than boys. The differences between the countries are practically non-existent.

More popular among the interviewees is research connected with their private interests, once a week up to a few times a week. There are no significant differences in that matter among the children of different SES, family size, gender or country.

The third activity involved watching online video content like films. Because of the legally unclear status of some of the video content available online, we wanted to make sure that our interviewees would provide honest answers without being afraid to admit committing illegal actions online. A similar issue was connected to the question concerning popular online portals known, for example, for streaming or downloading films and other video content. Our study, however, does not involve the ethical and legal nature of Internet use. Watching video content is the third most popular online activity among teenagers regardless of their SES and the country they live in. At the same time boys tend to watch videos more often than girls (once a week and more for girls and a few times a week, but sometimes up to everyday for boys).

As seen from the study results, teenagers from families of a higher SES spend less time on online gaming. While most of their peers use the In-

ternet to play games once a week or more often, teenagers of higher SES reach out to online games rarely, no more than once a week. The significant difference is also visible when taking into consideration teenagers' gender. Boys play more often in both socio-economic groups. This corresponds with the results showing greater access to game consoles among boys than girls.

Worth noting are the differences in the frequency of online gaming between the countries when taking into consideration the education level of their parents. While Polish teenagers from the first two groups play games less than their German peers, in the third and fourth group (illustrating the professional and higher education of their parents) their frequency of online gaming exceeds their German equivalents. Such a situation may be caused by the generally lower standard of living in Poland when compared to Germany, where the availability of devices enabling online gaming is, in general, lower. Game consoles and computers that fulfil the hardware standards of contemporary mass-produced games are expensive and treated as a gadget or an object of desire, rather than a necessary piece of equipment. This may explain why the frequency of online gaming will be higher among the Polish teenagers whose parents are likely to earn more than average, and at the same time the lowest reported frequency among the German teenagers whose parents have a university diploma. The first will be able to afford the desired object and the second, since it is no longer considered a symbol of status, will decide to limit the frequency of online gaming of their children in favour of other activities.

The most popular online activity for the teenagers from both Poland and Germany is listening to music. In both countries the majority of teenagers listen to the music online every day and sometimes several times during the day. Teenagers in both countries listen to music with similar frequency within different socio-economic groups.

Social networking is the second most popular online activity among the researched teenagers. The Polish teenagers tend to, however, use the social networks more often than their German peers (every day or more often, while the results for German teenagers suggest once a week and sometimes more).

Table 13. Average of the frequency of internet use for gaming separated by highest educational level of parents based on the following coding of the possible answers: 1-never, 2-rarely, 3-once a week, 4-daily, 5-several times daily

Country	Gender	Parent education level			
		None/low	Middle	High	Studied
Germany	Female	2.60	3.00	2.47	1.67
	Male	3.67	4.06	3.82	3.83
	All pupils	3.18	3.67	3.04	2.75
Poland	Female	3.00	2.15	2.54	2.50
	Male	2.50	4.17	4.17	3.71
	All pupils	2.86	3.12	3.35	3.07

While social networking is similarly popular among all the teenagers from all socio-economic backgrounds, a difference was found in the frequency of updating the status on social networks in the group of German teenagers. The teenagers from higher socio-economic background update their online status in social networks less often than other teenagers. While teenagers from lower socio-economic background update their status almost every day. This trend can be explained by the growing awareness of the significance of privacy issues among the latter group of teenagers, perhaps resulting from the more careful care for the privacy among their parents.

Teenagers from single-parent families update their status in social networks slightly more often than teenagers from full two-parent families. A similar difference was observed for the teenagers who were brought up as a single child when compared to peers having brothers or sisters.

This online activity is in general less frequent among young people (rarely, and up to once a week) and is more popular among girls than boys.

The frequency of Skype use and similar software is similar in both Poland and Germany. It is used rarely or up to once a week with a tendency for boys to use it slightly more often than girls.

Following a blog is not a popular activity for both German and Polish teenagers. German teenagers seem to read blogs slightly more often (rarely) than Polish (never, up to rarely), however, the differences between the countries are not significant. In accordance with Pew Research Center re-

sults, blogging is no longer a popular activity among teenagers (14% in 2010 from 26% in 2006).[38] The hypothesis made in the report is that the macroblogging (writing and reading a traditional blog) may be replaced with microblogging by the use of status updates and social networking.

Table 14. Average and standard deviation (in brackets) of the frequency of status updates in social media based on the following coding for the possible answers: 1-never, 2-rarely, 3-once a week, 4-daily, 5-several times daily

Country	Gender	
	Female	Male
Germany	2.41 (1.229)	2.15 (1.057)
Poland	2.82 (1.141)	2.67 (1.264)

Girls read and follow blogs more often than boys. The generally higher level of readership among girls translates into the fact that they surpass boys in reading blogs, too. The most popular blogs are devoted to fashion, shopping, and lifestyle; these may be stereotypically more appealing to the female readership spectrum.[39]

Sharing content and uploading it online was one of the questions that had to be presented very generally in our study, as we wanted to obtain objective results. Since such online behaviour is often associated with uploading copyright content without the consent of the authors, this activity is illegal and the teenagers might not want to admit such actions. This is why in the questionnaire the term of "content" (German "Inhalt", Polish "treść") is used which can also mean self-made videos, pictures, or texts. Most German and Polish teenagers share and upload content rarely, up to once a week, with minimal differences between the countries, gender, or family size.

[38] Lenhart, A. & Purcell, K. & Smith, A. & Zickuhr, K.: Social Media and Mobile Internet Use Among Teens and Young Adults, 2010. http://www.pewinternet.org/files/old-media//Files/Reports/2010/PIP_Social_Media_and_Young_Adults_Report_Final_with_toplines.pdf (23.09.2015)

[39] Crace, J. "The teen bloggers who took over the internet in *The Guardian*, 23/09/2015, http://www.theguardian.com/technology/2009/sep/09/teenage-bloggers.

Table 15. Average frequency of Internet use for several activities based on the following coding of the possible answers: 1-never, 2-rarely, 3-once a week, 4-daily, 5-several times daily

Activities	All cases	Germany	Poland	Girls	Boys
Research for school	2.92	2.87	2.98	3.04	2.80
Research for own interests	3.70	3.47	3.98	3.72	3.67
Watch movies and videos	3.72	3.73	3.72	3.41	4.03
Games	3.17	3.17	3.16	2.42	3.90
Listening to musik	4.11	4.01	4.23	4.21	4.01
Visit social networks	3.83	3.67	4.05	4.10	3.58
Post status updates in social networks	2.48	2.26	2.76	2.61	2.35
Skype or other calling services	2.89	2.88	2.89	2.67	3.11
Follow blogs	2.02	2.07	1.96	2.33	1.71
Taking care of blog or own website	1.53	1.55	1.52	1.68	1.39
Share content with others	2.51	2.53	2.49	2.61	2.42
Forum discussion	1.93	1.66	2.27	1.92	1.93
Online shopping	1.85	1.88	1.82	1.73	1.98

Participating in online forum discussions is, together with following blogs, blogging, and online shopping, one of the least popular online activities. There is, however, a difference in its popularity among the teenagers from Poland and Germany. Polish teenagers visit forums more often, stating that they do it rarely, up to once a week. At the same time their German peers have never done it or do it rarely.

Online shopping is not very popular among the teenagers. Mostly they shop online rarely. Boys show a tendency to shop online more often than girls.

Websites and online services used by teenagers

Significant correlations found for the type of websites and online services used by the teenagers and their socio-economic status involved their use of Wikipedia (for both countries), Facebook and Twitter (for Germany) and video streaming websites (for Poland).

The better the socio-economic status of the family, the more often the teenagers are using the Wikipedia website. Wikipedia is an online open encyclopaedia, created and edited by its users, which offers information about various facts, people, and processes. Since Wikipedia's introduction it has gained many active (registered) and passive users. It enables its users to describe the entries that are already present on the website and add new ones based on the users' judgement of their importance. While its openness has been recognised by the people searching for information online, it has also created a potential risk of misleading or simply false information, a phenomena higher than in any other encyclopaedia of that kind.

While searching for a term, Wikipedia is very often the first result suggested by the search engine. The surveyed teenagers use Wikipedia rarely, sometimes up to once a week. The frequency of its use is connected with its character. For many teenagers Wikipedia is an educational tool[40] and therefore it is used for the school research.

The higher socio-economic status of the German teenagers the less often they use the social network website, Facebook. German teenagers claim to use Facebook rarely, or up to once a week. There is also a slight difference depending on the teenagers' gender – girls use Facebook slightly more often than boys. The difference in the frequency of use between them and Polish teenagers is huge: Polish teenagers use Facebook every day, and up to a few times a day.

Table 16. Correlation between socio-economic status of the family and the frequency of use of Facebook

Use of service		All cases	Germany	Poland
Facebook	Spearman-Rho	*–0.145	**–0.266	–0.007
	significance	0.020	0.001	0.938
	N	259	144	115

* Correlation is significant at the 0.05 level (2-tailed)
** Correlation is significant at the 0.01 level (2-tailed)

[40] 88% of the teens use Wikipedia according to "Perceptions of Libraries 2010" study, 01/01/2015, https://www.oclc.org/content/dam/oclc/reports/2010perceptions/teensandyoungadults.pdf.

This difference may also be caused by the lower popularity of Facebook Messenger service in Poland. Messenger enables its users to receive and send messages to other Facebook users without logging on Facebook and de facto without using Facebook. Similarly, other messenger services such as Whatsapp or Viber enable users to not only text people from their contact list, but also have online voice conversations. As a result, Skype is more popular among Polish than German teenagers.

Table 17. Average and standard deviation (in brackets) of the frequency of Skype and messenger service use based on the following coding of the possible answers: 1-never, 2-rarely, 3-once a week, 4-daily, 5-several times daily

Use of service	Country	Gender	
		Female	Male
Skype	Germany	2.01 (1.19)	2.54 (1.25)
	Poland	2.34 (1.18)	2.82 (1.40)
Messenger services	Germany	4.65 (0.87)	4.44 (1.04)
	Poland	3.97 (1.55)	2.90 (1.64)

YouTube turned out to be the most popular online service used by the teenagers. Polish and German teenagers use YT every day and up to a few times a day. Only in Germany are messenger services more popular than YouTube. Drawing from the teenagers, the wide use of this website can be explained by the high popularity of listening to music as a pastime activity. YouTube also offers free video content which varies in length. Some full-length feature films can be found on YouTube. At the same time teenagers in both countries rarely stream or download films by means of other websites. However, results in Poland show an interesting positive correlation between the socio-economic status and the frequency of film streaming and downloading by the teenagers.

Twitter in Europe has never reached the level of popularity it has in the United States. The service is widely recognised by the business sector

and political and public figures around the world. At the same time, only 4 million Germans[41] and 56 thousand people in Poland[42] have an account on Twitter. No wonder it is not popular among the teenagers in both countries. There has been found, however, a negative correlation for the socio-economic status of German teenagers and their frequency of Twitter use. The frequency is not high in both countries and varies from never to rarely.

Table 18. Average frequency of use of different services based on the following coding of the possible answers: 1-never, 2-rarely, 3-once a week, 4-daily, 5-several times daily

Services	All cases	Germany	Poland
Wikipedia	2.68	2.70	2.64
Facebook	3.45	2.94	4.12
YouTube	4.21	4.11	4.34
Twitter	1.57	1.54	1.61
Spotify	1.58	1.67	1.46
Instagram	2.79	3.16	2.31
Skype	2.41	2.30	2.55
Streaming/download of movies	2.13	2.16	2.08
Messenger services (WhatsApp, Viber)	4.08	4.53	3.50

Although the popularity of YouTube among the teenagers is significant, Spotify's music streaming service seems to be unknown in the tested group age. Instagram is visibly more popular among German teenagers than Polish ones. Germans use it up to once a week, while Polish teenagers rarely.

Students participating in the questionnaire in both countries could also add two more online websites or services they use that were not mentioned in the table provided. The most often added element was Snapchat, a messaging application where the sent messages are deleted 10 seconds after being read.

[41] "What Germany Can Teach the Rest of Europe About Twitter," Forbes, accessed 01/10/2015, http://www.forbes.com/sites/alisoncoleman/2014/07/10/what-germany-can-teach-the-rest-of-europe-about-twitter

[42] "Polski Twitter to raptem 56 tys. aktywnych użytkowników. Dlaczego tylko tyle?," Gadzetomania, accessed 01/10/2015, http://gadzetomania.pl/2730,polski-twitter-to-raptem-56-tys-aktywnych-uzytkownikow-dlaczego-tylko-tyle.

Spending money on new media

In the study the monthly expenditure on new media software and services was checked. There was no question about the expenditures on hardware, as such purchases do not happen regularly and the costs are usually incurred by the parents, not the teenagers. Products (software) and services that the teenagers may spend money on were divided into six groups.

Table 19. Correlation between socio-economic status of the family and the frequency of spending money on different services

Services		All cases	Germany	Poland
Software for PC/ laptop	Spearman-Rho	–0.013	0.051	–0.086
	Significance	0.837	0.544	0.367
	N	254	142	112
Games for PC/ laptop	Spearman-Rho	0.069	0.014	0.159
	Significance	0.271	0.869	0.091
	N	256	142	114
Apps for smartphone/tablet	Spearman-Rho	0.098	0.074	0.117
	Significance	0.115	0.378	0.212
	N	258	143	115
Movie and music downloads	Spearman-Rho	0.070	–0.005	0.153
	Significance	0.266	0.951	0.106
	N	255	142	113
Ringtones	Spearman-Rho	–0.010	*–0.190	0.150
	Significance	0.873	0.023	0.110
	N	257	143	114
Paid content in games	Spearman-Rho	0.087	–0.067	**0.285
	Significance	0.164	0.425	0.002
	N	258	143	115

* Correlation is significant at the 0.05 level (2-tailed)
** Correlation is significant at the 0.01 level (2-tailed)

Two positive significant correlations were found in the results. In Poland teenagers who represent a higher socio-economic status often spend more money on paid content in games than other teenagers. In Germany

teenagers from lower socio-economic background often spent more money on ringtones.

In general, teenagers rarely or never spend money on online content. When the teenagers do buy something they are computer games which, although still not bought more often than "rarely", are the most popular purchases in both countries.

The reason for such behaviour can be the amount of free online content that enables the teenagers to use various software and applications without any costs. Interestingly, the teenagers hardly spend money on downloading video and music. This is surprising compared to the results of the frequency of downloading such content that we asked about in other parts of the questionnaire. The explanation can be double – either they download the content that is free of charge or they download it from the websites and servers that illegally offer copyright content free of charge.

When it comes to the differences between the teenagers, girls spend less money online than boys. This can be explained by their generally lower interest in games, which according to our results are the new media product that teenagers purchase more.

The amount of money spent is considerably low and equals ca. 10 euro in Germany and ca. 16 euro in Poland. The higher result in Poland is interesting when taking into consideration the significant difference in average income in Poland and in Germany (in Germany the average household net-adjusted disposable income per capita is USD 31,252; in Poland it's USD 25,908 a year).[43]

Active and passive new media use

A central concern to this study was to find out if there are differences in new media use of young people that would be determined by their socio-economic status. The hypothesis made a connection of higher socio-economical background with an active and more determined use of new media, while boys and girls from underprivileged families were suspected to show a more passive and entertainment-based behaviour of new media use.

[43] OECD Better Life Index, accessed 2/10/2015, http://www.oecdbetterlifeindex.org/countries/germany/ and http://www.oecdbetterlifeindex.org/countries/poland/

Table 20. Average of the frequency of use of different media based on the following coding of the possible answers: 1-never, 2-rarely, 3-once a week, 4-several times a week, 5-daily. Results shown separately for country and level of socio-economic status (low, medium, high)

The media	Germany			Poland		
	Low	Medium	High	Low	Medium	High
TV	3.50	3.95	3.78	4.56	4.46	4.48
Radio	2.68	2.87	3.45	2.90	2.45	2.46
Books (except textbooks)	2.43	2.54	3.13	2.74	2.88	2.64
Newspapers, magazines	1.71	1.97	2.73	2.33	2.28	2.22
Gaming console	2.98	2.64	2.37	2.55	2.59	3.03
PC, laptop, tablet	3.89	4.34	4.29	4.50	4.54	4.77
Mobile phone, smartphone	4.93	4.72	4.84	4.88	4.88	4.98
Internet	4.87	4.92	4.98	4.78	4.86	4.98

In a first approach to the hypothesis the frequency of use of different kinds of media was prepared to compare the different levels of socio-economic background. The consumption of TV and radio, with a focus on personal entertainment rather than an active and participative use, differs in both countries. In Poland boys and girls state to watch TV on a more daily basis, in Germany merely once to several times a week. In both countries there was no connection to the socio-economic status observed. This proves that television remains one of the most egalitarian and popular mass media at this time.

When it comes to listening to the radio, connections can be identified, but pointing in different directions. In Germany young people of higher SES are the more frequent listeners, while in Poland this applies to boys and girls form lower SES.

The classification of books and newspapers by way of their use can be both active and passive, but in contrast to TV consumption these media inherit the moment of promoting young people's education[44]. For Germa-

[44] Bos, Wilfried/Schwippert Knut/Stubbe, Tobias C.: Die Koppelung von sozialer Herkunft und Schülerleistung im internationalen Vergleich. In: Bos Wilfried/Arnold, Karl-Heinz/Faust Gabriele/Fried, Lilian/Hornberg, Sabine/Lankes, Eva-Maria/Schwippert, Knut/Valtin, Renate (Hrsg.): IGLU 2006. (Lesekompetenzen von Grundschulkindern in Deutschland im internationalen Vergleich, Münster, 2007), 225–247.

ny, the results of the study show a connection of the reading behaviour of young people to their socio-economic background in that they read more with a higher SES. For Poland, the data does not show this effect.

The game console findings show a structured connection to the SES in both countries, albeit in different ways. In Germany playing games on the console as an activity is more often mentioned by young people form a lower SES, while in Poland boys and girls from higher socio-economic background spend more time with gaming consoles. While the results for Germany can be interpreted as supporting the main hypothesis, in Poland the data shows the exact opposite. One factor of influence is Poland's lower medium household income, and how such households are less capable of affording a console for their children.

In Germany, on the other hand, households of lower SES are receiving social benefits on a comparatively high level. In this way, more families with lower income are able to afford such devices and the games. The parental control of use of these is then, therefore, higher in the families with higher SES than in less privileged families.

The use of the internet of boys and girls in both countries is very frequent according to their answers. The Internet has become the main and most popular medium for young people. In order to identify aspects of a more active or passive use the table below shows the frequency of different activities online in connection to the socio-economic status of the families.

The results for the question of how often the teenagers use the Internet to do research for school shows a difference in the frequency dependent on the socio-economic status. In both countries the collected data shows that with a higher socio-economic status boys and girls spend more time on doing research for school with the help of the Internet. While on the one hand this fact supports the main hypothesis, on the other hand both aspects (SES and the frequency of research for school) might be connected to the habitus. In this case a connection of higher education and career success of the parents might lead to the fact, that their children are more willing and/or more encouraged to be ambitious at school. For Germany the main hypothesis is also supported by the rising frequency of research for one's own interests with higher SES and, on the other side, a less frequent behaviour in watching television, playing games, and listening to music within teenagers from higher socio-economic background.

Table 21. Average of the frequency of different activities on the Internet based on the following coding of the possible answers: 1-never, 2-rarely, 3-once a week, 4-daily, 5-several times daily. By country and socio-economic status

Activities	Germany			Poland		
	Low	Medium	High	Low	Medium	High
Research for school	2.59	3.03	3.14	2.80	2.91	3.35
Research for own interests	3.42	3.51	3.59	4.03	4.06	4.00
Watching movies	3.73	3.87	3.59	3.58	3.80	3.87
Games	3.55	3.32	2.70	3.21	2.94	3.35
Listening to music	4.19	3.92	3.86	4.12	4.23	4.33
Visit social networks	3.88	3.51	3.57	3.90	4.11	4.15
Post status updates on social networks	2.51	2.10	2.10	2.87	2.56	2.95
Skype and other call services	3.00	3.00	2.64	2.66	2.83	3.25
Follow blogs	1.96	2.21	2.16	1.98	2.11	1.85
take care of own blog or website	1.24	1.87	1.55	1.70	1.51	1.40
Share contents with others	2.69	2.23	2.55	2.45	2.41	2.70
Discuss in forums	1.69	1.85	1.45	2.33	2.15	2.34
Shop online	1.85	1.68	1.98	1.73	1.79	2.00

In Poland the results are more intricate. While the already mentioned aspect of higher research for school can be observed, other indicators do not clearly show directional results. It might be the case that the interconnection of socio-economic status to the online activity of teenagers is not as strong as in Germany. It also might be masked by the aforementioned different financial capabilities of the households. One indicator supporting this point is the frequency of gaming for boys and girls in Poland. Here the teenagers from both lower and higher SES show more frequent use, while their peers from the medium level of SES mention this activity less often.

As it concerns the teenagers' agreement with to different statements, more aspects can be discussed in their connection to the main hypothesis. In Germany boys and girls from a family of higher socio-economic status support the statement the stronger their SES, the more often they use the Internet to get informed.

Table 22. Average value of agreement to different statements from 1-no agreement at all to 5-full agreement. By country and socio-economic status

Statements	Germany			Poland		
	Low	Medium	High	Low	Medium	High
I use the Internet often for my own entertainment	4.29	4.50	4.29	4.54	4.51	4.60
I use the Internet often to get informed	3.69	3.66	3.96	4.05	3.97	3.98
I often upload my own content	2.40	2.35	2.45	2.59	2.23	2.60
I get to know new people online	2.91	3.18	2.70	2.68	3.33	3.18
I have online friends that are as close to me as friends I meet	2.92	2.71	1.82	2.61	2.60	2.74
I actively post comments on the Internet	2.47	2.22	2.10	2.71	2.59	2.97
I often use the like-button on Facebook	2.83	2.40	2.11	3.90	3.54	3.83
I often share pictures and videos with others	2.94	2.43	2.58	2.71	2.44	2.95
I have more than 200 friends on Facebook	2.47	2.43	2.07	3.95	3.68	4.26
It is important to me how I present myself online	2.70	2.82	2.82	2.56	2.89	3.13
I like to get into discussions online	2.37	2.24	1.82	2.70	2.84	3.05
I speak my mind more freely online	2.96	2.67	2.06	3.03	3.20	2.92
I have experienced how somebody was mobbed online	3.15	3.26	2.41	2.95	2.88	2.18
Within the last month I witnessed a nasty situation online	1.58	1.68	1.41	1.58	2.06	1.56
It is important to me to always have an up-to-date smartphone	2.60	2.63	2.74	2.20	2.27	2.21
My smartphone is not older than one year	3.21	2.70	3.22	3.18	3.09	3.35
I play at the PC or console and meet with friends online	3.19	3.00	2.53	3.10	3.00	3.53
I meet with friends offline to play at PC or console	2.27	2.41	2.18	2.23	2.94	3.10

The aspects that were particularly discussed within this chapter support the main hypothesis in the way that boys and girls of higher SES use new media in a more determined way. In contrast, the results cannot be generalised in a way that with a higher socio-economic status comes a more active use by way of contribution and participation. For example, in Germany the different levels of agreement to the statements "I actively comment on the Internet", "I like to get into discussions online" and "I speak my mind more freely online" show a lower agreement by the boys and girls from more privileged families.

What the data points out is that the interconnection of socio-economic status and new media use is very heterogeneous. The results show that aspects like the use of different services or what to use the Internet for varies with the SES of the teenagers. The results shown so far can be generalised in the way that boys and girls from higher SES are more likely to do research for educational matters with the help of the Internet, while they are less likely to engage online mobbing, bullying, or harrassment.

The collected data show a significant correlation in some aspects that were measured in the form of the agreement to statements. Significant correlations with the teenagers' socio-economic status and their new media use in Germany are as follows:

- The higher the parents' work status the more often teenagers use the Internet to contact friends.
- The higher the socio-economic status the less likely that the teenagers will have online friends who are as close to them as friends met offline.
- The higher the parents' education level the less often do teenagers use the "Like" button on Facebook.
- The higher the parents' work status the more frequently do the teenagers state that they pay attention to their online privacy.
- The higher the socio-economic status the less often teenagers agree to the statement that they feel they can more freely and easily express themselves online.
- The higher the socio-economic status the less often teenagers are witnesses of online mobbing situations.

On the other hand, significant correlations with the teenagers' socio-economic status and their new media use in Poland are:

- With the parent's level of education rises the agreement to the statement that it's important to present oneself online well.
- A higher socio-economic status of parents correlates with young people not leaving home without the smartphone.
- Young people with a higher socio-economic background express that they meet with friends to play computer or video games offline more often.

Online relationships and friendships have been given a lot of attention since the rise in popularity of Internet chatrooms and dating websites. According to the Pew Research Center study, teenagers use these networks mostly to stay in touch with the people they already know and have met in person. Even though there is more than 50% who meet their new friends online. The latter behaviour is connected this friendship in the digital world or moving it to the everyday world.[45]

Active new media use can be characterized by an active participation in online reality. Examples include participating in online discussions, forums and social networks, and sharing one's own content with others online. Although gaming and consuming entertainment by the means of new media is seen as passive new media use, a user who gets involved in developing a character in a game in the long term can be classified as an engaged/active new media user.

The use of new media by the teenagers in both countries can be characterized as rather passive. New media are mostly used for entertainment. Polish teenagers seem to, however, be more pro-active in social networks. They use the "Like" button more often and are more likely to participate in online discussions. They are also more involved gamers and take pride in updating online characters they are playing (this difference is also visible between the genders – boys are in general more frequent players and they also spend more time "enriching" their avatars).

[45] Lenhart, Amanda, Madden Mary, "Teens, Privacy & Online Social Networks. How teens manage their online identities and personal information in the age of MySpace", Pew Internet and American Life Project, Pew Research Center, 18 April 2007, http://www.pewinternet.org/files/old-media//Files/Reports/2007/PIP_Teens_Privacy_SNS_Report_Final.pdf.pdf (accessed 2.10.2015).

Table 23. Average value of agreement to different statements by country and gender

Statements	Germany		Poland	
	Female	Male	Female	Male
I frequently use the internet for my entertainment	4.13	4.49	4.49	4.61
I frequently use the internet to get informed	3.90	3.69	3.99	3.98
I frequently contribute my own content to the internet	2.48	2.36	2.40	2.62
I actively comment content online	2.14	2.37	2.71	2.89
I frequently use the like-button on Facebook	2.35	2.59	4.07	3.39
I frequently share pictures and videos with others	2.55	2.80	2.81	2.53
In games I like to continuously develop my avatar	1.54	3.14	2.48	4.42
It is important to me, to present myself online positively	2.57	2.93	2.91	2.77
I like to take part in discussions online	1.87	2.37	2.58	3.25

In summary, it can be ascertained that the socio-economic status of young people is connected to their media use in various aspects. The data revealed differences in the amount of use of different devices and services, in the educational use of the Internet, and in the frequency of active contribution on social platforms. At the same time it also has to be noted that socio-economic status does not only influence the future of young children directly by the education on income level of the parents, as such are also influenced by distinctions in habitus and future expectations. Additionally, these effects accumulate especially on both ends of the scale of socio-economic status. In a debate about equal chances of young people in the education systems regardless of their social background, the differences in their new media use cannot be seen as another field where children from a lower socio-economic status are underprivileged. It is interconnected with educational success, social integration, and future chances because competence in new media use is directly linked to these aspects.

Conclusions

The use of media, both old and new, has always been of a great interest to scientists and media creators. One of the most interesting groups of media users are teenagers for whom media has become a natural part of an everyday life. In fact, the so-called new media have already become a standard media that young people have grown up with. Their patterns of media consumption differ, however, with regards to their socio-economic status. The difference in media use can also be caused by the economic status and social help offered by their country of residence. Although these differences can be often minimalized by the social pressure to keep up with the newest technology that is especially strong among young people.

As visible from the research results, access to new media hardware is relatively high when compared to old analogue media. Both in Poland and in Germany, the most popular media are: television, smartphones and laptops. Printed media, such as newspapers and magazines, are one of the least popular media among the teenagers (together with old generation mobile phones). Wide access to hardware, connected with limited use and the ability to use it, can be an influence of consumer culture on 21st century society, the so-called new media consumerism[46] and a result of a well-played marketing, rather than conscious customer decision.

The Internet has become the most frequently used medium among the teenagers participating in the study. Moreover, there is a positive correlation between the SES of the parents and the frequency of the teenagers' Internet use. Also the place of Internet use is slowly changing. One's home is still a very popular place, however, mobile Internet access (paid and for free) are becoming more and more popular, and are overtaking the popularity of the use of the Internet in other people's houses.

The participating teenagers began using new media at the ages of 7–8. By the time these teenagers reach age 15, they should already be the skilled users of new media, taking into consideration their average 7.5-year experience with the abovementioned.

[46] McAllister, M.P., "Consumer culture and new media: commodity fetishism in the digital era" in *Media Perspectives for the 21st Century*, ed. Stylianos Papathanassopoulos, Routledge, Oxon/New York, 2011.

The active use of the Internet in order to conduct research connected to the private interests of the teenagers shows no systematic differences among the children of different SES, family size, gender, or country. It can rather be seen as a universal regularity and also a characteristic of the Internet as a medium. At the same time, the most popular services and websites among the teenagers are messenger services, YouTube, and social networks (such as Facebook, Instagram, or Snapchat). The early age of Internet initiation and the characteristics of the use of it, speak to the value of media education in the early stages of a child's school life. Critical media literacy can, and in some countries already is, taught at school. It is the same in case of video game(s) literacy, however, for the lack of a proper school curriculum in this respect, it cannot be taught as a school subject and approached critically. Similarly, video game literacy, which seldom appearance in a result of the absence of a curriculum to teach and critique this medium (although the conceptual framework is already available).[47]

Teenagers in Poland and in Germany rarely or never spend money on online content. This situation makes the differences among the ownership of hardware more visible than the differences in the ownership of software.

A central concern to this study was to find out if there are differences of young people's new media that could be determined by their socioeconomic status. It is true that the teenagers of higher SES tend to use the media in a different way, however, the differences are not always identical in both countries, taking into consideration the special characteristics of Poland and/or Germany.

In the presented study the patterns of use of the media by the teenagers were analysed. Nevertheless, the study did not contain the division into the different platforms on which the media can be consumed. A study showing particular aspects of the presented research, such as television or music consumption on various platforms could be of great interest.

[47] Delwiche, A. "Media Literacy 2.0" in *Media Literacy. New Agendas in Communication*, ed. Kathleen Tyner, (New York, NY: Routledge, 2010), 177–179.

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The questionnaires were distributed in the following schools:

Erfurt, Germany:
- Thomas-Mann-Schule (Regelschule)
- Ulrich-von-Hutten-Schule (Regelschule)
- Albert-Schweitzer-Gymnasium
- Staatliche Kooperative Gesamtschule "Am Schwemmbach"

Sosnowiec, Poland:
- Gimanzjum nr 9 im. Jana Pawła II
- Gimnazjum nr 13 im. Adama Mickiewicza
- Gimnazjum nr 12 (Zespół Szkół Ogólnokształcących nr 8 im. Jana Pawła II)

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Krystyna Doktorowicz, Christoph Huth, Anna Latos

Młodzież i nowe media. Wpływ statusu socjo-ekonomicznego na użytkowanie nowych mediów przez nastolatków w Polsce i w Niemczech

Streszczenie

W artykule przedstawiono wyniki badań nad wykorzystaniem nowych mediów przez młodzież w dwóch porównywalnych miastach w Niemczech i Polsce. Autorzy koncentrują się na wpływie statusu społeczno-ekonomicznego na użytkowanie mediów i wprowadzają dwa jego typy: zdeterminowany i oparty na rozrywce. Ponadto dane są analizowane z uwzględnieniem różnic między dwoma krajami, dla danej płci, a także biorąc pod uwagę dodatkowe korelacje. W artykule zostały opisane trendy i nowe wzorce wykorzystania mediów. Ukazano obraz korzystania z mediów przez młodych ludzi, na który wpływ ma społeczno-ekonomiczny status rodziców, a także presja społeczna, aby pozostawać w kontakcie i stale być online.